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Box 15
Item 15-09.08

Las Cienegas National Conservation Area
Landscape Scale Ecosystem Restoration Project

Executive Summary

Las Cienegas National Conservation Area (LCNCA) was created to conserve, maintain, protect, and enhance the unique and nationally important aquatic, wildlife, vegetative, scenic, rangeland, and riparian resources found within the 49,000 acres of BLM-managed public land. At the same time, Congress designated the surrounding Sonoita Valley Acquisition Planning District (SVAPD) which encompasses an additional 96,000 acres of Arizona State Trust lands, private lands and BLM lands within the Cienega watershed that could be added to LCNCA in the future.

Resource managers have identified the need for implementation of habitat treatments to restore and maintain the unique ecosystems found within LCNCA and SVAPD to achieve the goals and objectives outlined in the Las Cienegas Resource Management Plan and Record of Decision (RMP/ROD) (BLM 2003).

This proposal will address some treatment strategies for improving, restoring, and maintaining the nationally significant riparian habitats, native grasslands, proper watershed function and condition, and threatened and endangered species habitat (aquatic and terrestrial) within LCNCA and SVAPD.

Background

Las Cienegas National Conservation Area (LCNCA) is located in southeastern Arizona. It is a part of the Bureau of Land Management, Gila District (BLM). The LCNCA is approximately 49,000 acres of BLM-managed public lands within the upper Cienega Creek watershed. It is surrounded by the Sonoita Valley Acquisition Planning District (SVAPD) which is a mixture of Arizona State Trust lands, privately owned-lands, Pima County owned-lands and some scattered BLM parcels. LCNCA and SVAPD are bordered by two units of the Coronado National Forest. Together they form a critical open-space and habitat linkage through southeastern Arizona. The Las Cienegas RMP was developed through an eight-year collaborative planning process with the Sonoita Valley Planning Partnership, which is an association of federal, state, and local agencies; non-profit organizations; ranchers and other stakeholders, and private citizens with an interest in the Cienega watershed. Sonoita Valley Planning Partners are continuing to partner with BLM and other land owners/managers in the Cienega watershed in order to support plan implementation, including restoration actions. Congressman Kolbe has provided long-term support for the project.

The LCNCA encompasses much of the upper Cienega Creek watershed. It contains five of the rarest habitat types found within the American southwest. These habitats include cienegas (wetlands), cottonwood-willow riparian areas, sacaton grasslands, mesquite bosques, and semi-desert grasslands. These habitats support several threatened and endangered species (native fish, frogs, and bats) and numerous species of special concern (migratory birds, grassland sparrows, and antelope). All of the public lands within the LCNCA are designated an Area of Critical Environmental Concern (ACEC).

Need
Due to periodic drought, fire suppression strategies, habitat loss from human expansion, historic erosion and downcutting of drainages, and the introduction of non-native animals and vegetation, the ecosystem found within the upper Cienega Creek watershed has seen numerous ecological impacts that threaten the ecosystems proper function and condition.

Resource managers are faced with the task of implementing the goals and objectives outlined in the RMP to prevent further degradation and to ultimately restore the ecosystem. To meet this challenge resource managers have outlined several habitat improvement treatments throughout the LCNCA and SVAPD.

The BLM has limited personnel and funding to implement the treatments identified in the RMP on a landscape scale. The BLM is currently collaborating with other agencies and groups (state, federal, & local), completing NEPA documentation, implementing small scale treatments, and evaluating the results. USGS has expressed interest in joining BLM in implementing project work.

Proposal
This proposal supports the addition of funding towards the LCNCA Landscape Scale Ecosystem Restoration Project. The funding would support the development and expansion of the restoration treatments that are currently being completed and will aid in the development and expansion of treatment alternatives that are still in the planning process. The additional funding would allow resource managers to implement the treatments that are outlined in the Las Cienegas RMP on a landscape scale, building on existing projects and expanding partnerships and collaboration in the watershed.

Goal
The following are the goals and objectives that the resource managers would like to accomplish if additional funding is obtained:

- Implement the habitat restoration projects outlined in the RMP on a landscape scale.
- Utilize existing baseline monitoring data to enable a science based approach when evaluating treatment impacts to the ecosystem. Use adaptive management practices when necessary to improve treatment objectives and techniques.
- Continue to support and develop a collaborative approach to ecosystem management on a landscape scale in the LCNCA and on adjacent public lands.
- Support implementation of existing watershed improvement projects. Support the development and implementation of additional watershed improvement projects.

Implementation
Resource managers are tasked with implementing the goals and objectives stated in the Las Cienegas RMP. To implement the treatments identified in the RMP on a landscape

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Implementation

Resource managers are tasked with implementing the goals and objectives stated in the Las Cienegas RMP. To implement the treatments identified in the RMP on a landscape

scale would require long-term additional funding and continued collaboration and partnership across jurisdictions. Resource managers would use the existing resource management collaboration strategies to plan, prioritize, implement, and monitor restoration treatments. See Appendix A for list of restoration treatments and partners. Additional funding will not only allow BLM to implement expanded restoration projects in this unique and nationally significant landscape, but also will enable BLM to leverage significant matching funding through the many partners collaborating in the watershed.

Contact Information

Project	Name	Position	Phone
Supervision & Budget	Bill Civish	Gila District Manager	928 348 4401
Prescribed Fire	Dan Quintana	Fuels Specialist	928 348 4525
Fence Modification Grassland Restoration Tamarisk Removal	Keith Hughes	Natural Resource Specialist	520 258 7239
Watershed Restoration	Dan Moore	Hydrologist	520 258 7234
Riparian Habitat Enhancement	Jeff Simms	Fisheries Biologist	520 258 7209
Partner Coordination and Planning	Karen Simms	Ecosystem Planner	520 258 7210

Appendix A.

Las Cienegas National Conservation Area
Ecosystem Restoration Projects

Project Category	Project Description	Unit	Amount	Partners
Prescribed Fire	Apply prescribed fire treatments. NEPA is complete for initial treatment areas, Burn plans in the	16,000 acres @$120 per acre	$320,000 /year For 6 years	University of Arizona, Arizona Game and Fish Department, Arizona State

scale would require longer-term additional funding and continued collaboration and partnership across jurisdictions. Resource managers would use the existing resource management collaboration strategies to plan, prioritize, implement, and monitor restoration treatments. See Appendix A for list of restoration treatments and partners. Additional funding will not only allow BLM to implement expanded restoration projects in this unique and nationally significant landscape, but also will enable BLM to leverage significant matching funding through the many partners collaborating in the wash and

Contact Information

Supervision & Budget	Bill Crick	Cibola District Manager	928 348-4201
Prescribed Fire	Dan Quintana	Fuels Specialist	928 348-4525
Fence Modification Grassland Restoration Tamarisk Removal	Keith Hughes	Natural Resource Specialist	520 258 7239
Watershed Restoration	Dan Moore	Hydrologist	520 258 7234
Riparian Habitat Enhancement	Jeff Sipins	Fisheries Biologist	520 258 7209
Partner Coordination and Planning	Karen Simms	Ecosystem Planner	520 258 7210

Appendix A.

Las Cienegas National Conservation Area
Ecosystem Restoration Projects

Project Category	Project Description	Unit Cost	Amount	Primary
Prescribed Fire	Apply prescribed fire treatments. PSET A is complete for initial treatment areas. Burn plans in the	16,000 acres @$720 per acre	$230,000 /year for 6 years	University of Arizona, Arizona State Land Dept, Arizona State

	process of being written. Expected to start in FY 07. Will take 6 years to complete initial acres.			Land Department. Audubon Ranch, Local ranchers.
Grassland Restoration	1. Mechanically thin mesquite encroaching on grasslands. (NEPA complete, implementation on initial 1,500 acres will begin in Sept. 06.) 2. Herbicide treatment of mechanically thinned mesquite. (NEPA in process of complete, implementation on initial 1,500 acres will begin in Sept. 06.) 3. Weed Inventory (early detection) of new weed species.	20,000 acres @ $200 per acre 20,000 acres @ $150 per acre 5000 acres @ $10 per acre	$800,000/year For 5 years $600,000/year For 5 years $10,000/year For 5 years	University of Arizona, Arizona State Land Department, Arizona Game and Fish Department, Sonoita Valley Planning Partners Sonoran Institute, Arizona-Sonora Desert Museum INVADERS program volunteers, National Park Service
Tamarisk Removal	Cut and spray tamarisk along Cienega and Empire creeks. NEPA complete, 1 mile of initial treatment complete.	5 miles @ $300 per mile first entry $175 per mile after	$3,000/year	Arizona-Sonora Desert Museum INVADERS program volunteers
Fence Modification	Modify existing fences to allow for improved big game migration and passage.	15 miles @ $500 per mile	$7,500	Various volunteer groups
Watershed	Erosion control	3 projects	$600,000 total	Bureau of

	process of being written. Expected to start in FY 07. Will take 6 years to complete initial acres.			Land Department, Audubon Ranch, Local ranchers,
Grassland Restoration	1. Herbicide thin sesbania encroaching on grasslands. (NEPA complete, implementation on initial 1,500 acres will begin in Sept. 06.)	20,000 acres @ $200 per acre	$800,000 year	University of Arizona, Arizona State Land Department, Arizona Game and Fish Department, Sonoita Valley Planning Partners
	2. Herbicide treatment of mesquite, tamarisk and Russian olive in process of complete, implementation on initial 1,500 acres will begin in Sept. 06.)	20,000 acres @ $150 per acre	$800,000/year For 5 years	
	3. Weed Inventory (early detection) of new weed species.	5000 acres @ $10 per acre	$10,000/year For 5 years	Sonoran Institute, Arizona-Sonora Desert Museum INVADERS program volunteers, National Park Service
Tamarisk Removal	Cut and spray tamarisk along Cienega and Empire creeks. NEPA complete. 1 mile of initial treatment complete.	5 miles @ $200 per mile (acre entry $175 per mile after	$1,000/year	Arizona-Sonora Desert Museum INVADERS program volunteers
Fence Modification	Modify existing fences to allow for improved big game migration and passage.	15 miles @ $500 per mile	$7,500	Various volunteer groups
Watershed	Erosion control	3 projects	$900,000 total	Bureau of

Restoration	**measures and creek restoration in Cienega Creek and its tribuaries, Mattie Canyon and Wood Canyon where impacted by down-cutting. Add additional erosion control and creek restoration where needed.**	**initially at $200,000 per project**		**Reclamation, Master Watershed Steward volunteers with University of Arizona Cooperative Extension, Sonoita Valley Planning Partners**
Riparian Habitat Enhancement	**Improve aquatic habitat for native fish and amphibians. Stock native fish, remove non-native fish and frogs.**	**6 projects @$10,000 per project**	**$60,000 total**	**Arizona Game and Fish Department, University of Arizona, The Nature Conservancy, Sonoita Valley Planning Partners, U.S. Fish and Wildlife Service**

Total amount of requested funds for this proposal: $1,733,000 per year for multi-year projects.
$667,500 one time projects. Partners contribute labor, equipment and supplies for some of the project work.

San Simon Watershed Restoration Project

Executive Summary

The Upper Gila River watershed in Arizona is one of the most important watersheds in the nation and has been identified by the Secretary as one of the 12 showcase watersheds under the Clean Water Action Plan. The San Simon watershed is part of the Upper Gila watershed and has been identified by the Gila Watershed Partnership, a community based watershed group, as an important subwatershed to restore. The Safford Field Office administers about 750,000 acres of the approximately 1,258,000 acre watershed. The primary objective is to decrease the silt and salt load entering the Gila River from the San Simon watershed.

Restoration	measures and creek restoration in Cienega Creek and its tributaries, Mattie Canyon and Wood Canyon where impacted by down-cutting. Add small scale erosion control and creek restoration where needed.	initially at $700,000 per project		Reclamation, Master Watershed Steward volunteers with University of Arizona Cooperative Extension, Sonoita Valley Planning Partners.
Riparian Habitat Enhancement	Improve aquatic habitat for native fish and amphibians. Stock native fish, remove non-native fish and frogs.	5 projects @$210,000 per project	$900,000 total	Arizona Game and Fish Department, University of Arizona, The Nature Conservancy, Sonoita Valley Planning Partners, U.S. Fish and Wildlife Service

Total amount of requested funds for this proposal: $1,723,000 per year for multi-year projects.
$667,500 one time projects. Partners contribute labor, equipment and supplies for some of the project work.

San Simon Watershed Restoration Project

Executive Summary

The Upper Gila River watershed in Arizona is one of the most important watersheds in the nation and has been identified by the Secretary as one of the 12 showcase watersheds under the Clean Water Action Plan. The San Simon watershed is part of the Upper Gila watershed and has been identified by the Gila Watershed Partnership, a community based watershed group, as an important subwatershed to restore. The Safford Field Office administers about 750,000 acres of the approximately 1,258,000 acre watershed. The primary objective is to decrease the silt and salt load entering the Gila River from the San Simon watershed

Background

In 1919, the San Simon was recognized in U.S. Senate Document 436 as needing extensive restoration. From 1883 to 1916, in the short span of 33 years, headcutting of the San Simon advanced some 60 miles up the channel and ranged from 10-30 feet deep and 40-800 feet wide.

Actions that contributed to the rapid erosion include:

- overgrazing by livestock on the uplands in the 1880s
- extended drought, broken by intense thunderstorms
- construction of a drainage ditch from the Gila River up the San Simon Valley in 1883
- development of wagon roads and increased freight use throughout the watershed during the early development of copper mines in the area (1880s)
- construction of the Gila Valley, Globe, and Northern Railway (1884)

In 1934, the Soil Erosion Service (later to become the Soil Conservation Service) and the Civilian Conservation Corps (CCC) began numerous erosion control measures on the San Simon watershed. Construction of erosion control structures continued until the early 1980's and resulted in 19 major detention dams, numerous diversion dikes, and water spreaders.

In addition to the erosion control structures, rangeland seedings, improved grazing systems and road repair and improvements have been implemented. These actions have led to additional watershed improvement in the project area.

Need

The erosion control structures that have been very effective in restoring the watershed are in desperate need of repair. Many structures have had no maintenance work since they were constructed and are in danger of failing which would negate years of progress in restoring the watershed.

Travel on existing roads has increased significantly through the years from recreational pressure which has led to erosion problems. In addition to the existing roads, some new trespass roads have developed, again leading to increased erosion. This requires the need to address erosion due to the travel network which could include the hardening of some roads, installation of culverts, and the closing and rehabbing of roads.

Grazing systems have been implemented through the years and have recently been evaluated through the Bureau's Standard and Guidelines process. This process has identified actions to further improve the watershed. These actions include additional fencing, invasive weed control, prescribed fires and seedings.

Proposal
The proposal is to implement land treatments to continue to improve the San Simon watershed. These actions would focus on maintaining all existing erosion control structures, maintaining/rehabbing roads and continuing to improve grazing systems.

Goal
The following are the goals and objectives that the resource managers would like to accomplish if additional funding is obtained:

- Implement the watershed restoration projects outlined in the RMP on a landscape scale.
- Reduce silt and salt load entering the Gila River.
- Continue to support and develop a collaborative approach to ecosystem management on a landscape scale in the San Simon watershed.
- Support implementation of existing watershed improvement projects. Support the development and implementation of additional watershed improvement projects.

Implementation
To implement the treatments identified on a landscape scale would require long-term additional funding and continued collaboration and partnership across jurisdictions. Resource managers would use the existing resource management collaboration strategies to plan, prioritize, implement, and monitor restoration treatments. See Appendix A for list of restoration treatments and partners. Additional funding will not only allow BLM to implement expanded restoration projects in this unique and nationally significant watershed, but also will enable BLM to leverage significant matching funding through the many partners collaborating in the watershed. The USGS has expressed an interest in joining BLM in project implementation.

Appendix A.

San Simon Watershed
Restoration Projects

Project Category	Project Description	Unit	Amount	Partners
Erosion control structure maintenance and repair	**1. Maintain and repair six major detention dams.**	**6 dams impacting the entire watershed**	**$1,500,000**	**Gila Watershed Partnership, Graham County, Local Ranchers.**
	2. Maintain and repair 5 diversion dikes.	**5 dikes impacting the entire**	**$1,400,000**	**Gila Watershed Partnership, Graham County,**

		watershed		Local Ranchers.
Road maintenance	Maintain and repairs roads that are contributing to erosion in the entire watershed. This will include installing culverts, relocating portions of roads to avoid erosive areas, and hardening (chip seal) 35 miles of road.	150 miles	$1,500,000	Gila Watershed Partnership, Graham County.
Close and restore unauthorized roads	Close and restore unauthorized roads that have developed as recreational pressure increases in the watershed. These roads are located in areas that lead to severe erosion.	50 miles	$100,000	Gila Watershed Partnership, Off-Road Groups.
Riparian and wildlife habitat restoration	Install fencing to exclude cattle from sensitive wildlife and riparian areas.	20 miles	200,000	Gila Watershed Partnership, Arizona Game and Fish, Local Ranchers.
Invasive plant treatment	Remove invasive plants through prescribed burning, mechanical treatment and herbicide application. Some of the areas will be seeded after treated.	5000 acres	100,000	Gila Watershed Partnership, Local Ranchers.

			watershed	Local Ranchers.
Road maintenance	Maintain and repair roads that are contributing to erosion in the entire watershed. This will include installing culverts, relocating portions of roads to avoid erosive areas, and hardening (chip seal) 35 miles of road.	150 miles	$1,500,000	Cibo Watershed Partnership, Crenshaw County.
Close and restore unauthorized roads	Close and restore unauthorized roads that have developed as recreational pressure increases in the watershed. These roads are located in areas that lead to severe erosion.	50 miles	$100,000	Cibo Watershed Partnership, OHV Road Groups
Riparian and wildlife habitat restoration	Install fencing to exclude cattle from sensitive wildlife and riparian areas.	20 miles	200,000	Cibo Watershed Partnership, Arizona Game and Fish, Local Ranchers.
Invasive plant treatment	Remove invasive plants through prescribed burning, mechanical treatment and herbicide application. Some of the areas will be seeded after treated.	5000 acres	100,000	Cibo Watershed Partnership, Local Ranchers.

Total amount of requested funds for this proposal: $4,800,000. Partners contribute labor, equipment and supplies toward the projects. The Gila Watershed will seek grant monies to supplement the available funding.